

REMARKS/ARGUMENTS

Claims 1, 3-10 and 12-17 are pending. By this Amendment, claims 2 and 11 are cancelled, and claims 1, 3, 7-10, 12, 16 and 17 are amended. Support for the amendments to claims 1, 3, 7-10, 12, 16 and 17 can be found, for example, in the instant specification at page 15, line 9 to page 17, line 7 and in original claims 1, 3, 7-10, 12, 16 and 17. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Rejection Under 35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 1-17 as indefinite under 35 U.S.C. §112, second paragraph. By this Amendment, claims 2 and 11 are cancelled, rendering the rejection moot as to those claims. As to the remaining claims, Applicant respectfully traverses the rejection.

The Office Action asserts that the claims include various translation-related informalities. By this Amendment, multiple revisions to the claims are made to improve their clarity and to obviate the rejection. Claims 1, 3, 7, 9, 12 and 16 are amended in accordance with the Examiner's helpful suggestions. With respect to claims 1 and 9, the Office Action asserts that the phrases "low refractive index layer" and "high refractive index layer" are vague and unclear. Applicant submits that these terms are well-understood in the art of antireflection coatings. *See, e.g.*, U.S. Patent No. 5,747,152 to Oka et al. (cited below), column 3, lines 11 to 41. One of ordinary skill in the art can readily discern whether a particular layer is a "low refractive index layer" and "high refractive index layer," and thus the metes and bounds of the claims are clear.

For the foregoing reasons, claims 1, 3-10 and 12-17 are definite. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1-17 under 35 U.S.C. §103(a) over U.S. Patent No. 5,747,152 to Oka et al. ("Oka"), or in the alternative over Oka in view of JP 2003-001744 to Ito ("Ito"). By this Amendment, claims 2 and 11 are cancelled, rendering the rejection moot as to those claims. As to the remaining claims, Applicant respectfully traverses the rejection.

Claim 1 recites "[a]n antireflection film for transfer comprising: a support, an antireflection layer on the support, and an adhesive layer on the antireflection layer, wherein: the antireflection layer comprises a high refractive index layer ... the adhesive layer comprises a radiation curable adhesive, and the high refractive index layer is impregnated with a portion of the adhesive ... the high refractive index layer is formed by coating a coating liquid comprising the metal oxide fine particles, and the at least one of the photopolymerization initiator and the photosensitizer" (emphasis added). Claim 9 recites "[a]n antireflection film for transfer comprising: a support, an antireflection layer comprising a low refractive index layer disposed on the support and a high refractive index layer disposed on the low refractive index layer ... and an adhesive layer on the antireflection layer, wherein ... the adhesive layer comprises a radiation curable adhesive, and the high refractive index layer is impregnated with a portion of the adhesive ... the high refractive index layer is formed by coating a coating liquid comprising the metal oxide fine particles, and the at least one of the photopolymerization initiator and the photosensitizer" (emphasis added). Oka and Ito do not disclose or suggest such antireflection films.

The Office Action asserts that Oka inherently discloses impregnation of a high refractive index layer by an adjacent adhesive layer, as recited in claims 1 and 9. *See* Office Action, page 3. Oka discloses that an adhesive layer can be formed on a hard coat layer or a resin layer. *See, e.g.*, column 9, lines 58 to 60, column 26, lines 23 to 27 and 46 to 52, column 37, lines 28 to 33; FIGS. 4, 17, 18 and 28. The Office Action appears to assert, based

on this teaching, that the disclosed adhesive layers would necessarily impregnate the adjacent hard coat or resin layers. Applicant submits that one of ordinary skill in the art would not expect that the adhesive layers of Oka would impregnate the adjacent hard coat or resin layers.

The hard coat or resin layers of Oka are formed of resin. *See, e.g.*, column 41, lines 4 to 9. One of ordinary skill in the art would expect that the surface of the hard coat or resin layers of Oka would be in a closed state, which would prevent impregnation by adjacent adhesive layers. That is, the surface of the hard coat or resin layers of Oka would not be expected to include voids, etc., into which adhesive from adjacent adhesive layers could be impregnated – thus, impregnation would not occur. While Applicant contends that impregnation would not occur, at the very least, it cannot be asserted that the adhesive layers of Oka would necessarily impregnate the adjacent resin or hardcoat layers. As is well-settled, "[t]he fact that certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of the result or characteristic." *See* MPEP §2112.IV (citing *In re Rijckaert*, 9 F.3d 1531 (Fed. Cir. 1993)) (emphasis in original). The condition of impregnation of a high refractive index layer with adhesive from an adhesive layer is not inherent in the teachings of Oka.

Claims 1 and 9 also require that the recited adhesive layers include a radiation curable adhesive. Oka discloses that a moisture curing urethane adhesive or a thermosetting urethane adhesive be used to form the disclosed adhesive layer. *See* column 26, line 63 to column 27, line 9; column 31, lines 1 to 4. Further, in all Examples set forth in the disclosure of Oka, adhesive layers are formed from moisture curing urethane adhesives or thermosetting urethane adhesives. *See* Examples A7, A8, B1-B4, C2, C3 and C7. Nowhere does Oka disclose employing a radiation curable adhesive in an adhesive layer, and there is nothing in Oka that suggests that such a radiation curable adhesive would be desirable. The Office

Action's mere assertion that "selection of such a radiation curable adhesive seems well within the ordinary skill of the art" (see page 3), cannot support a *prima facie* case of obviousness.

In addition, Oka provides no specific disclosure of forming a high refractive index layer by coating a coating liquid comprising metal oxide fine particles and a photopolymerization initiator or photosensitizer, as in claims 1 and 9. Rather, Oka discloses, for example, forming a transparent functional film by: (i) coating a sol of ultrafine particles having a low refractive index on a release film 36 to form an ultrafine particle layer 33 having a low refractive index; (ii) coating a sol of ultrafine particles having a high refractive index on the ultrafine particle layer 33 to form an ultrafine particle layer 34 having a high refractive index, thereby forming a functional ultrafine particle layer 35; and (iii) further coating a resin composition on the functional ultrafine particle layer 35 to form a resin layer 32. *See, e.g.*, column 36, lines 51 to 62. As Oka does not disclose coating a coating liquid comprising metal oxide fine particles and a photopolymerization initiator or photosensitizer, as recited in claims 1 and 9, one of ordinary skill in the art would not expect the structures disclosed in Oka to have the composition of the high refractive index layers recited in claims 1 and 9.

Ito does not remedy the deficiencies of Oka. Ito is cited in the Office Action as disclosing antireflection films including three- and four-layer structures, as recited in claims 1 and 9. However, Ito, like Oka, fails to disclose or suggest a high refractive index layer impregnated with adhesive, an adhesive layer including a radiation curable adhesive, or a high refractive index layer formed by coating a coating liquid comprising metal oxide fine particles and a photopolymerization initiator or photosensitizer. As neither Oka nor Ito disclose such features, the combination of references fails to disclose or suggest each and every feature of claims 1 and 9.

As discussed in the instant specification, the presence of photopolymerization initiator and/or photosensitizer in the high refractive index layers recited in claims 1 and 9 facilitates curing of the radiation curable components of the adhesives that impregnate those high refractive index layers. *See* page 16, line 17 to page 17, line 4. As a result, excellent adhesion between the high refractive index layers and adhesive layers is achieved – an improvement over known antireflection films. *See* instant specification, page 17, lines 4 to 7. In films such as in Oka, by contrast, curing of the disclosed adhesives is not facilitated by photopolymerization initiators or photosensitizers in the adjacent hard coat or resin layers because the adhesives are of moisture-curing or thermosetting type. Moreover, because the disclosed hard coat or resin layers are not impregnated with adhesives from adjacent adhesive layers, adhesion cannot be improved as is possible with the configurations recited in claims 1 and 9.

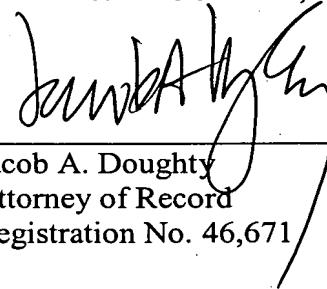
As explained, Claims 1 and 9 would not have been rendered obvious by Oka and/or Ito. Claims 3-8, 10 and 12-17 depend variously from claims 1 and 9 and, thus, also would not have been rendered obvious by Oka and/or Ito. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For the foregoing reasons, Applicant submits that claims 1, 3-10 and 12-17 are in condition for allowance. Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Jacob A. Doughty
Attorney of Record
Registration No. 46,671

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)